

## Governance Impacts on Forest and Rangeland Resource Sustainability

Governance is the framework of laws and institutions through which decisions are made about use, management, investment, and conflict resolution on California's forests and rangelands. The framework includes the legislative, executive and judicial branches of government. These occur at various levels—federal, state, regional, and local. Private market institutions, voluntary associations such as watershed groups, and international forums are also involved.

Laws and agency jurisdictions apply to nearly 20 categories of public values, including special, cultural, and scientific values. For example, both federal and state laws cover coastal resources, wild and scenic rivers, wilderness, and cultural/historic sites. Multiple agencies often have authority over a specific resource type on private or public land. In addition, administrative boundaries historically tend to follow resource or topographic definitions rather than ecological considerations. A complex overlap of jurisdictions results in relationship to the conservation and management of forests and rangelands.

At the federal level, at least 70 laws and Executive Orders relate to California's forests and rangelands. Some of these specifically reference conservation or sustainable management as goals; others only relate indirectly. The most significant laws for California have been the federal Endangered Species Act, Clean Air Act, and Clean Water Act. Six federal agencies play a key role in the way public lands containing forest and rangeland resources are managed in California. These include the U. S. Forest Service (USFS), Bureau of Land Management (BLM), National Park Service (NPS), U. S. Fish and Wildlife Service (FWS), U. S. Environmental Protection Agency (EPA), and National Marine Fisheries Service (NMFS).

At the state level, over 30 laws and Executive Orders deal with aspects of forests and rangelands. A number of departments, boards, and commissions within the Resources Agency and the California Environmental Protection Agency have regulatory influence on private forest and rangeland management. Several state agencies own and manage forest and rangeland properties for a variety of goals. The California Wildlife Conservation Board and various conservancies hold easements and

contractual commitments from landowners to ensure management of specific environmental protection and/or enhancements.

In California, local government also can affect the use of agricultural and natural resource lands. Influence occurs in a variety of ways, particularly through zoning and nuisance ordinances, the General Plan process, land use policies, and project review under the California Environmental Quality Act. In addition, some counties, especially those in the San Francisco and Monterey Bay regions, fund extensive acquisition and easement programs for forests and rangelands.

At every agency and level of government, California's institutions for forests and rangelands have dealt with many issues over the last decade. Concerns and conflicts over air and water quality, open space, oaks, old growth, fish, and wildlife have resulted in significant changes in management of public lands and restrictions on private landowners. At the same time, the public has supported billions of dollars in funding for programs of acquisition, restoration, and habitat improvement.

There has been an increasing presence of federal and state agencies providing funding at the watershed level, as well as development of robust watershed and community groups at the local level. The role of non-profit organizations has greatly expanded, especially in facilitating negotiation of agricultural and conservation easements, wherein a landowner gives up rights to subdivide and sell land for development in exchange for tax benefits and/or payment.

The result of this strong interest is a very complex and uncoordinated mix of approaches taken at different levels of government to management, investment, and conflict resolution. For example, regulations are mixed with market or conservation incentives, cost sharing, funding for acquisition and easements, tax policies, and information sharing and education. The effectiveness of these tools in promoting forest and rangeland sustainability is inconsistent and in some cases, counter to broader goals. Therefore, it is important to gauge the impact of governance factors on sustainability.

### Governance Indicators

- **Regulatory Jurisdictions over Management Activities**

## Regulatory Jurisdictions over Management Activities

**On-line Technical Report:**  
[http://frap.cdf.ca.gov/assessment2003/Chapter7\\_Governance/legal.html](http://frap.cdf.ca.gov/assessment2003/Chapter7_Governance/legal.html)  
**Data Quality: Additional development ?**

Public lands are currently subject to restrictions that curtail timber harvesting, grazing, and other commodities. Management on privately owned forests and rangelands is also heavily influenced by regulation or voluntary frameworks. Often similar to management guidelines on public lands, they include the following measures:

- plans to protect and restore fish and fish habitat;
- landscape level environmental review such as watershed assessment or cumulative watershed effects analysis;
- Board of Forestry rules requiring consideration of sustained growth and timber harvest;
- development of plans that address threatened and endangered terrestrial and aquatic species;
- application of CEQA requirements to Fish and Game Stream Crossing Permits; and
- stronger application of federal Clean Water Act requirements by Regional Water Quality Control Boards (RWQCBs).

The result has been a growing overlap of regulatory frameworks and legal requirements. These include reserve designations, watershed policies by agencies on federal lands, regulatory approaches on privately owned forest lands, and voluntary approaches on privately owned rangelands. The expected impacts of regulation to sustaining biological diversity and improving soil and water conditions is approximated in the following summary.

FRAP ranked each bioregion to reflect the percent of forests and rangelands where specific regulatory requirements, or lands of particular concern under the Forest Practice Rules (FPRs) (steep slopes, riparian areas, and late successional forests), are likely to dictate the amount and type of land management activities permitted. These Special Management Zones focus on timber management, grazing, and other land use actions. Bioregions with substantial portions of land in special management zones are likely to have greater attention directed towards protection of biological diversity, ecosystem structures, and soil and water quality. The following are the regulatory or unique land formations used to identify these zones:

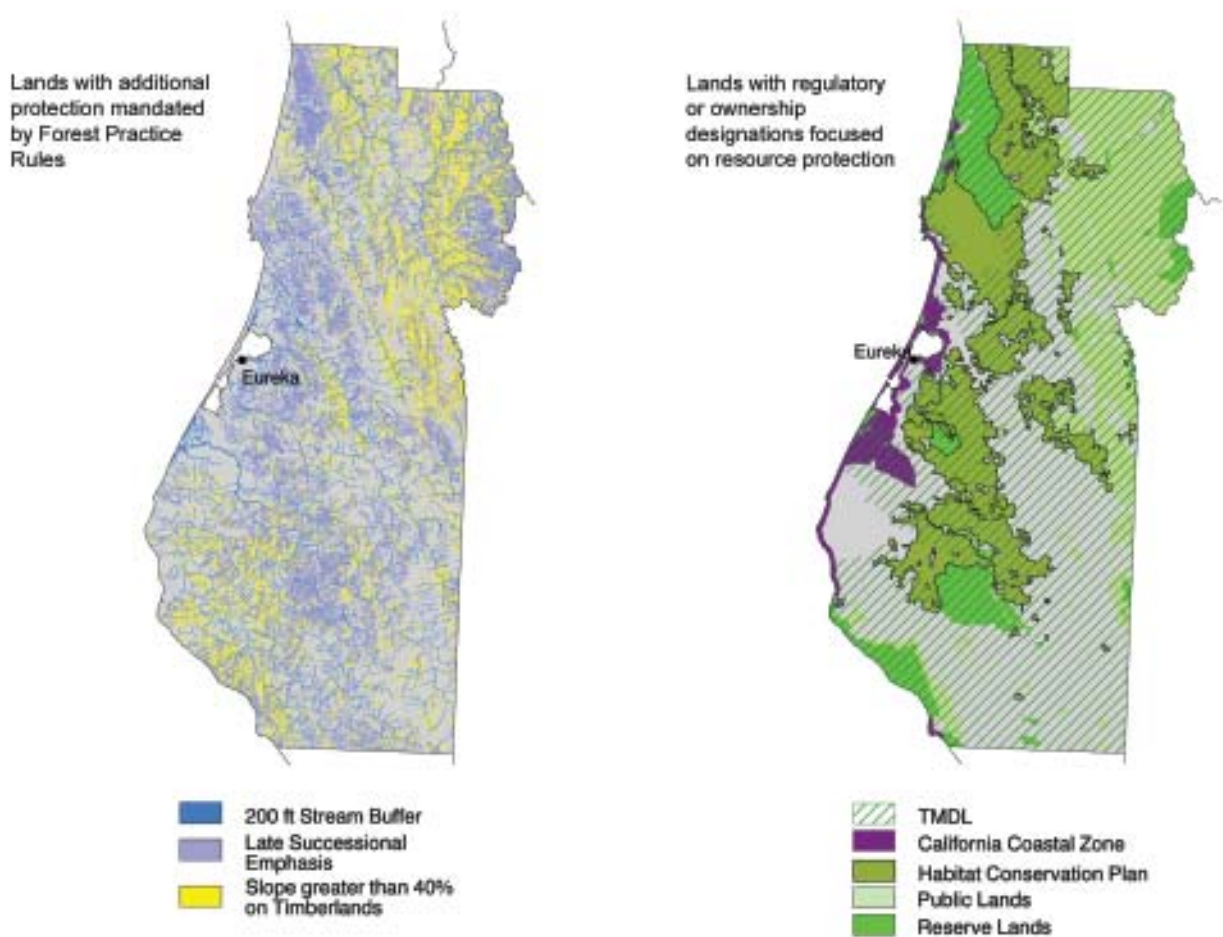
- California Coastal Zone designation;
- Habitat Conservation Plans and Natural Community Conservation Plans;
- public lands;
- reserves (excludes most extractive management and commodity production);
- forested lands with slopes over 40 percent;
- perennial stream riparian areas;
- late successional forests (LSF) (approximate extent as defined by Forest Practice Rules);
- watersheds with Total Maximum Daily Load (TMDL) plans; and
- voluntary or mandatory county oak ordinances on hardwood rangeland areas.

Of the over 80 million acres of forests and rangelands, 73 percent have special regulatory laws and plans, zoning ordinances, and ownership designations focusing on protection of resource values including the basic Forest Practice Rules and CDFA requirements. Profiles of each bioregion show that the highest proportions of special management zones on forests and rangelands are in the Klamath/North Coast (90 percent) and Mojave and Colorado Desert bioregions (over 80 percent) (Figure 88).

Results of the analysis suggest that most forests and rangelands where significant management activities occur have some multiple regulatory foci or designations that can contribute to the protection of unique habitats, biological diversity, soil and water quality, and aquatic systems. For example, over 90 percent of Humboldt County has a regulatory designation or a land form that can key special review for impacts from logging or grazing (Figure 89). However, the extent of government regulation does not necessarily predict the actual level of environmental stewardship and protection.

Success of sustaining ecological values will depend on good land management practices and a willingness to expend limited financial resources, both public and private. To a certain extent, investments on private forest lands are compelled by requirements of the FPRs, but more investments will likely be needed over time.

**Figure 89. Special Management Zones, Humboldt County**



Source: FRAP, 2003g



The legal system has been the most significant factor in resolving conflict, on both public and private lands. Throughout the 1990s, litigants filed numerous lawsuits regarding resource issues. On public lands, lawsuits have led to federal actions that more aggressively protect threatened and endangered species, such as the northern and California spotted owls. Lawsuits challenging implementation of the federal Clean Air and Clean Water Acts have also led to more stringent requirements in California.

On private lands during the 1990s, 24 lawsuits were settled regarding timber harvesting. The reasons behind many of these lawsuits relate to objections by neighbors, the public, and interest groups concerning the location and extent of harvesting or the impacts on water supplies, amenities, and threatened or endangered species. Other issues addressed by these legal proceedings included the timely provision of information to the public and the quality of environmental impact analyses contained in proposed timber harvest plans.

Results of litigation in California on public lands include improvements in agency information and

analysis, as well as a management focus on the public involvement process. Examples include lawsuits that led to the Northwest Forest Plan, wildlife consultation and forest planning efforts in southern California national forests, and attempts to address water quality issues in public, forested watersheds of the Sierra and North Coast. State agencies have had to make similar kinds of adjustments. Private landowners have had to develop ways to work with the public, anticipate litigation, and often provide the resources necessary to defend their actions in court. The time and cost incurred by the landowners results in limited effectiveness in terms of cost and on-the-ground stewardship and protection.

California voters have increasingly been asked to resolve very complex issues formulated as ballot propositions. Ballot propositions have been advanced relating to several issues: forest practices, range and wildlife management, and investment in water, air, parks, habitat, and related infrastructure. Initiatives approved through the ballot box have focused on protecting wildlife from certain control methods, acquiring habitat, and funding stream restoration, upper watershed work, and other projects related to improved water supply.



Photo by Lynn Betts, USDA Natural Resources Conservation Service.

among federal agencies, states, local governments, tribes and the interested publics. The Plan seeks to reduce the impacts of wildland fires on communities and natural and cultural resources.

At the heart of these cooperative fire threat efforts is the need to work with the public to protect communities in the WUI. A high level of growth in the WUI is placing more citizens and property at risk of wildland fire around metropolitan areas, and increasing ecosystem health problems across the landscape. These plans recognize that many of the past century's traditional approaches to land management have resulted in development of unnaturally dense, diseased, or dying forests and treatment of wildfire has contributed to more severe fires and created widespread threats to communities and ecosystems.

The movement towards localized resource governance and problem-solving using watersheds as the theme has become popular countrywide, but particularly so in the West. Efforts are denoted by many terms including partnerships, councils, advisory groups, initiatives, committees, programs, or forums. Watershed councils or partnerships work to improve status quo conditions. Relationships between agencies and the watershed community were improved through these collaborative processes as indicated by better cooperation, coordina-

tion, and communication. In an evaluation of regional and local watershed partnerships in California and Washington, U. C. Davis researchers found that primary success factors included adequate time (duration of four years or more), interpersonal trust, and technical information regarding the watershed.

Multiple state programs fund local watershed activities, including assessment, planning, implementation, monitoring, outreach, and operational support. However, the majority of the available funding is reserved for project implementation. Many federal, local, and private sources of funding also benefit watershed partnership efforts.

Many watershed groups have also formed and are operating as collaborative partnerships. There are well over 100 watershed partnerships in California representing varying levels of activity. The number varies each year due to group disbandment and new formation. By their nature, such groups may be able to better involve the local landowners and the public. They are better able to define common problems and address solutions. Government agencies may be involved or even facilitate the process and provide funding, but the context is decidedly local.

During the last decade, many public education and awareness efforts have attempted to convey the concept of forest and rangeland sustainability to the public. At least 19 federal laws mandate federal agencies to maintain educational programs related to forest and natural resource sustainability, seven of which specifically concentrate on forests. There are multiple educational programs that cover aspects of forest sustainability as well. Both the federal and state governments significantly influence environmental education, including areas that relate directly to forests and rangelands. The nongovernment sector is also a major factor in the educational process. In addition, many educational programs exist as partnerships between the public and private sector.



Community watershed activities, Arroyo Seco, Los Angeles County, California.

resources. Resource development focuses on lands, waterways, or other resources developed for recreational or economic use. Public safety programs focus on maintaining a safe environment for users of the resource and the resource itself. These include both hazard response and public education programs for emergencies or to prevent accidents.

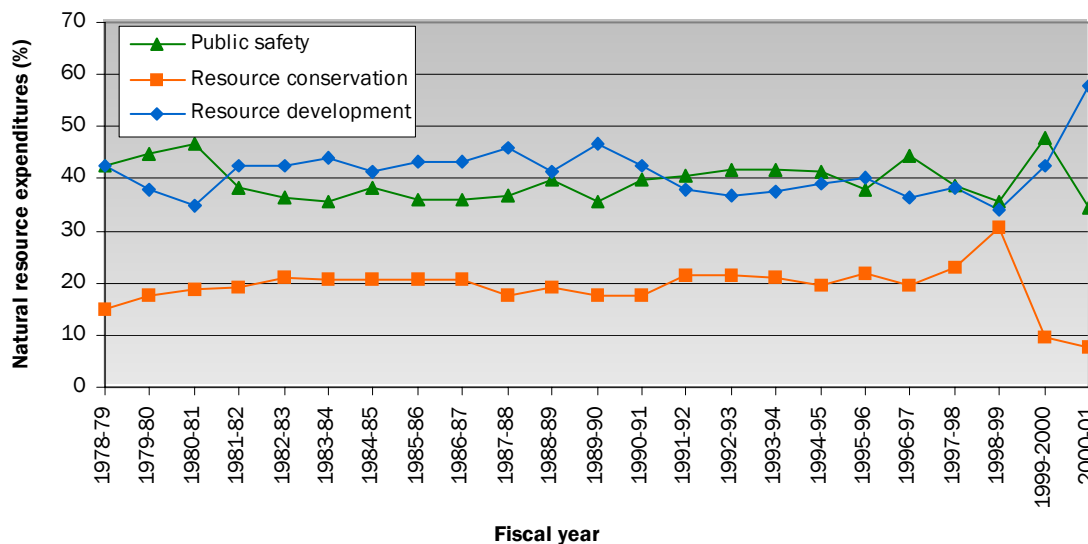
No explicit study has been made to separate investment in forest and rangeland resources among the resource conservation, resource development, and public safety programs within the California Resources Agency. However, while expenditures in total nominal dollars for some programs that contain forest and rangeland elements have increased, forest and rangeland expenditures as a percentage of program spending has been stable (Figure 91).

Along with resource conservation, public safety and resource protection have been among the top two levels of state expenditure. Both the state and federal government make substantial investments in personnel and equipment to respond to wildfire. Federal and state

agencies each spent over \$200 million in 2002–03 for fire preparedness.

The state and federal governments also spend considerable funds to reduce the risk of wildland fire. California's Vegetation Management Program burns an average of 31,282 acres through 60 projects. Following severe wildfires in 2000, the Secretaries of Agriculture and the Interior developed the National Fire Plan which is aimed at managing severe wildland fires, reducing fire impacts on rural communities, and ensuring effective firefighting capacity in the future. The National Fire Plan was developed to address five key points: firefighting, rehabilitation and restoration, hazardous fuel reduction, community assistance, and accountability. Under the plan, allocations for hazard and fuel treatments in California for fiscal year 2002 exceeded \$67 million. Federal agencies targeted 143,673 acres with 71,213 of those acres in the wildland urban interface (WUI).

**Figure 91. Percentage of annual natural resource expenditures on forests and rangelands within the California Resources Agency, by program category, 1978–2000**



Source: Compiled by FRAP from PPIC, 2003 fide Silva, 2002